

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/730,059
Atty Docket No. Q78807

AMENDMENTS TO THE DRAWINGS

Please replace Fig. 8 with the attached replacement sheet including Fig. 8A. Fig. 8A is the same as Fig. 8, except for the change of label from “Fig. 8” to “Fig. 8A”. Also, please add new sheets, Figs. 8B, 8C and 8D.

Attachment: Replacement Sheet
New Sheets

REMARKS

Claims 1-11, 13, 15 and 16 are all the claims pending in the application. Claims 1-7 have been withdrawn, claims 8-11, 13 and 15 have been examined on the merits and claim 16 has been newly added. Claims 12 and 14 have been canceled without prejudice or disclaimer.

Drawings

The Examiner has objected to the drawings as allegedly failing to show every feature of the invention specified in the claims. Applicants hereby add new drawings 8B, 8C and 8D. Additionally, the title of Fig. 8 has been changed to Fig. 8A.

Fig. 8B illustrates a suction adherence surface which has numerous minute protrusions and indentations. Fig. 8C illustrates the suction-adherence surface comprising a brush and Fig. 8D illustrates the suction-adherence surface comprising a sponge. Support for these figures can be found at least in the first full paragraph on page 12. The specification explains that a non-limiting embodiment may have a suction adherence surface which includes minute protrusions and indentations, as may be created by blasting. As an alternative to a blasting treatment, the suction adherence surface of a non-limiting embodiment may comprise a sponge or a brush. The new drawings are fully supported by the originally filed specification. No new matter has been added.

Specification

The specification has been amended to incorporate the change of Fig. 8 to Fig. 8A and the inclusion of new Figs. 8B, 8C and 8D.

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Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 9 and 14 include allowable subject matter and that they would be allowable if rewritten in independent form and to overcome the 35 U.S.C. § 112 rejection discussed below. Claim 9 has been rewritten in independent form and is now allowable. Claim 14 has been canceled.

Claim Rejections - 35 U.S.C. § 112

Claims 8-15 stand rejected under 35 U.S.C. § 112 as allegedly being indefinite. Specifically, the Examiner asserts that it is unclear whether the claims are directed to a sucker per se, or a combination of a sucker with a printing plate and a protective sheet. Applicants submit that the claims are directed to a sucker per se, and have amended the claims to clarify that they are directed to a sucker per se. Accordingly, Applicants believe that the rejection has been overcome.

Claim Rejections - 35 U.S.C. § 102(b)

Claims 8, 12, 13 and 15 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Seto (U.S. Patent No. 5,156,387). Applicants respectfully traverse the rejection in view of the following arguments.

Claim 8 sets forth that a surface of a skirt portion that closely corresponds with the protective sheet is configured so that it is substantially parallel to the suction-adherence surface of the main body portion during a suction-adherence operation. The Examiner asserts that the lower surface (102b) of the main body (102) of Seto constitutes a suction-adherence surface, and that a surface of the Seto suction skirt (104) is substantially parallel to the alleged suction-

adherence surface (102b). Even if the lower surface (102b) of Seto were considered a suction-adherence surface, during a suction adherence operation it would not be substantially parallel to a surface of a skirt (104) that closely corresponds with the protective sheet. The surface of the skirt (104) in Seto which would contact another surface during a suction operation is curved. It conforms to a shape corresponding to the wavy edges of the peripheral wall (108). (See Fig. 4 and column 4, lines 43-51) In contrast, the lower surface (102b) is a flat surface. The curved skirt (104) is at an angle with respect to the flat lower surface (102b); they are not substantially parallel to one another.

A non-limiting embodiment of the sucker consistent with claim 8, such as is illustrated in Figs. 8 and 9, can suction one set of a printing plate and a protective sheet integrally, without causing wrinkling in the protective sheet during suction-adherence and sheet feeding operations. Namely, a non-limiting embodiment of a device consistent with claim 8 can prevent deformation of the protective sheet which is suctioned by the sucker in contact therewith, so that an air leak caused by the deformation of the protective sheet will not be formed between the printing plate and the protective sheet. In this regard, the suction-adherence surface of the non-limiting embodiment of the specification is formed substantially in a plane, and the surface of the skirt portion that closely corresponds with the protective sheet is configured to be substantially parallel to the suction-adherence surface during the suction-adherence operation, so that the surface closely corresponding with the protective sheet during the operation becomes substantially a plane shape. Accordingly, the protective sheet can be kept in a plane state during the operation, thereby preventing deformation (wrinkling) of the protective sheet.

On the other hand, the object of Seto is to provide a suction cup capable of reliably suctioning and feeding only the uppermost sheet-like member without imparting any swinging or flying action to the sheet-like member. This is accomplished by intentionally deforming the sheet-like member and sending air flow between the uppermost and next sheet-like members (*see* Seto column 4, line 61 to column 5, line 8). Peripheral wall 108, rather than lower surface 102b, may correspond to the suction-adherence surface. The peripheral wall has a wavy edge configuration, and the sheet-like member is to be deformed into a shape corresponding to the edge of the wall 108 via suction skirt 104 which also deforms along the wall 108 during suction operation. The Seto configuration does not allow for a skirt portion surface which operates as claimed, and cannot achieve the operation similar to an exemplary embodiment of a device consistent with claim 8. Accordingly, claim 8 is allowable over Seto.

Claims 13 and 15 depend from claim 8, and are therefore allowable at least because of their dependency. Claim 12 has been canceled, rendering its rejection moot.

Claim Rejections - 35 U.S.C. § 103(a)

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Seto. Applicants respectfully traverse the rejection in view of the following arguments.

Claim 10 sets forth configuring the sucker such that when it performs a suction-adherence operation, the gap *t* between the suction-adherence surface of the sucker and the protective sheet is in a range such that the protective sheet will substantially not be drawn in toward the suction-adherence surface. The Examiner acknowledges that Seto is silent as to any gap size, but asserts that it would have been obvious to set the gap as set forth in claim 10.

However, the Examiner fails to identify the motivation in the prior art to set the gap size as claimed. Although the Examiner asserts that one of ordinary skill in the art would have been motivated to set a gap size so that the protective sheet will substantially not be drawn in so as to minimize contact and avoid excessive damage, the Examiner fails to identify where this motivation comes from, since it is clearly not in Seto.

Additionally, Seto does not recognize that the gap size has an effect on drawing in a protective sheet. Because Seto does not recognize that the gap size has an effect on whether a sheet is drawn in, one of ordinary skill in the art would not be motivated by Seto to set the gap size to any particular value. A parameter must first be recognized as a result-effective variable before it can be optimized. (MPEP 2144.05) The Examiner has failed to establish that the gap size had been recognized as a result-effective variable outside of the present disclosure.

Therefore, the Examiner's assertion that it would have been obvious to set the gap size to a particular range or to achieve a particular characteristic is improper. Accordingly, claims 10 and 11 are allowable over Seto.

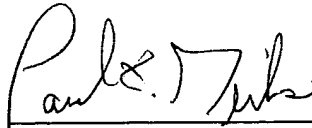
Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Paul F. Neils", written over a horizontal line.

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